Federal Trade Commission Report

"TAR", NICOTINE AND CARBON MONOXIDE OF THE SMOKE OF 208 VARIETIES OF DOMESTIC CIGARETTES

MARCH 1983

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REPORT OF "TAR", NICOTINE AND CARBON MONOXIDE CONTENT OF THE SMOKE OF 208 VARIETIES OF DOMESTIC CIGARETTES

March 1983

The Federal Trade Commission's Laboratory has determined the "tar" (dry particulate matter), total alkaloid (reported as nicotine) and carbon monoxide content of 208 varieties of cigarettes. The Laboratory utilized the Cambridge filter method with the following specifications as set forth in the Commission's announcement of July 31, 1967 and July 10, 1980:

1. Smoke cigarettes to a 23 mm. butt length, or to the length of the filter and overwrap plus 3 mm. if in excess of 23 mm.
2. Base results on a test of approximately 90 cigarettes per brand, or type.
3. Cigarettes to be tested will be selected on a random basis, as opposed to "weight selection".
4. Determine particulate matter on a "dry" basis employing the gas chromatography method published by C. H. Sloan and B. J. Sublett in *Tobacco Science* 9, page 70, 1965, as modified by F. J. Schultz' and A. W. Spears' report published in *Tobacco*, Vol. 162, No. 24, page 32, date June 17, 1966, to determine the moisture content.
5. Determine and report the "tar" content after subtracting moisture and alkaloids (as nicotine) from particulate matter.
6. Carbon Monoxide is determined by non-dispersal infrared spectrophotometer.

Concerning the 208 varieties tested, 15 were capable of being smoked to 23 mm. The butt length of the other 193 varieties tested ranged from 24.3 mm. to an average of between 40.3 to 44.0 mm. The butt length of 169 of the 208 varieties tested exceeded 30 mm.

The samples used were obtained by attempting to purchase two packages of each variety of cigarettes as distributed by domestic cigarette manufacturers during December 1981 through February 1982 in each of 50 geographic locations throughout the country. Not all varieties of cigarettes were available in each of the 50 geographic locations and in these instances, one or more additional packages of cigarettes were purchased in those geographic locations where respective varieties were available. The samples utilized in the tests were representative of the 208 varieties of cigarettes as available throughout the country at the time of purchase.

In the table listing the cigarette varieties in alphabethical order the "tar" and carbon monoxide content is reported to the nearest 0.1 milligram and the nicotine to the nearest 0.01 milligram, each with appropriate statistical values. The average weight is reported in grams per cigarette and the butt length range to the nearest 0.1 millimeter. In all other tables the average weight and butt length columns and the figures representing the standard deviation of the mean have been eliminated. The "tar" and carbon monoxide figures have been rounded to the nearest milligram (0.5 milligrams and greater rounded up, 0.4 milligrams and less rounded down) and the nicotine figures have been rounded to the nearest tenth of a milligram (0.05 milligrams and greater rounded up, 0.04 milligrams and less rounded down). Three tables respectively list varieties in increasing order of "tar" values, in increasing order of nicotine values and in increasing order of carbon monoxide values. Accordingly, "tar", nicotine and carbon monoxide figures in the tables represent rounded off averages without indication of their precision.

It should be noted that cigarette brands with assay results for "tar" and carbon monoxide below 0.5 mg. per cigarette and for nicotine below 0.05 mg. per cigarette are recorded in the accompanying tables as <0.5 mg. "tar", <0.05 mg. nicotine and <0.5 mg. carbon monoxide. The tables do not differentiate between these cigarettes because the current, approved testing methodology is not sensitive enough to differentiate between cigarettes at these levels.

The various test results for all brands of Barclay cigarettes have been reported with *an asterisk* (*) in the tables within this Report as they were in the Report of December 1981, because a controversy continues to exist as to whether the FTC testing methodology understates the "tar", nicotine and carbon monoxide delivery of Barclay cigarettes. On June 25, 1982, following an investigation, the Commission determined that its current cigarette testing methodology does not measure accurately the "tar", nicotine and CO delivery of Barclay cigarettes. The Commission's decision is currently the subject of a pending court suit filed by Brown & Williamson Tobacco Corporation, manufacturer of Barclay.

The Commission has also found that there is a significant likelihood that the same problem (namely, an inaccurate reporting of the "tar", nicotine and CO delivery) exists with respect to Kool Ultra and Kool Ultra 100's, two other brands of cigarettes manufactured by Brown & Williamson. However, the Commission has not concluded at this time that Kool Ultra and Kool Ultra 100's are ranked inappropriately. Three asterisks (***) have been appended to the test scores for Kool Ultra and Kool Ultra 100's in this report to indicate this controversy.

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TAR①, NICOTINE② AND CARBON MONOXIDE CONTENT OF TWO HUNDRED-EIGHT (208) VARIETIES OF DOMESTIC CIGARETTES

BRAND	TYPE⑦	AVERAGE WEIGHT④	BUTT LENGTH③	TPM DRY①⑥	NICOTINE①	CARBON MONOXIDE
Alpine	F;SP;M 85mm	0.9653	28.4—29.8mm	14.1 ± 0.2	0.86 ± 0.02	13.6 ± 0.2
Barclay*	F;HP 80mm	0.8165	33.9—36.5mm	1.4 ± 0.3	0.17 ± 0.04	1.2 ± 0.3
Barclay*	F;SP 85mm	0.8499	34.1—35.7mm	0.7 ± 0.2	0.11 ± 0.01	0.6 ± 0.1
Barclay*	F;SP;M 85mm	0.8878	33.0—35.9mm	1.1 ± 0.1	0.11 ± 0.02	1.2 ± 0.2
Barclay*	F;SP 100mm	1.0736	37.9—40.9mm	3.2 ± 0.2	0.31 ± 0.02	2.5 ± 0.2
Barclay*	F;SP;M 100mm	1.0563	38.5—40.3mm	3.3 ± 0.2	0.31 ± 0.02	2.8 ± 0.2
Belair	F;SP;M 85mm	0.9451	32.2—34.5mm	9.0 ± 0.3	0.72 ± 0.03	9.8 ± 0.3
Belair 100's	F;SP;M 100mm	1.1372	37.8—40.3mm	9.5 ± 0.2	0.69 ± 0.03	11.4 ± 0.4
Benson & Hedges	R;F;HP 70mm	0.9808	32.2—33.4mm	0.9 ± 0.2	0.10 ± 0.01	1.5 ± 0.1
Benson & Hedges	F;HP 85mm	1.0103	32.0—33.3mm	16.0 ± 0.4	1.21 ± 0.03	13.1 ± 0.4
Benson & Hedges 100's	F;HP 100mm	1.0938	34.3—35.4mm	16.0 ± 0.3	1.06 ± 0.03	15.5 ± 0.4
Benson & Hedges 100's	F;HP;M 100mm	1.1252	34.1—35.4mm	16.3 ± 0.4	1.05 ± 0.03	15.3 ± 0.3
Benson & Hedges 100's	F;SP 100mm	1.1185	33.9—35.7mm	16.8 ± 0.5	1.12 ± 0.03	16.3 ± 0.5
Benson & Hedges 100's	F;SP;M 100mm	1.1243	34.0—35.5mm	16.5 ± 0.3	1.12 ± 0.02	16.2 ± 0.3
Benson & Hedges Lights 100's	F;HP 100mm	1.1041	38.3—39.5mm	11.4 ± 0.4	0.80 ± 0.03	12.9 ± 0.4
Benson & Hedges Lights 100's	F;HP;M 100mm	1.1146	38.0—39.4mm	10.9 ± 0.3	0.80 ± 0.03	12.2 ± 0.3
Benson & Hedges Lights 100's	F;SP 100mm	1.1197	37.2—41.0mm	10.8 ± 0.4	0.79 ± 0.04	13.0 ± 0.4
Benson & Hedges Lights 100's	F;SP;M 100mm	1.1144	38.1—39.8mm	10.7 ± 0.3	0.76 ± 0.02	12.0 ± 0.4
Bull Durham	F;SP 85mm	1.1650	24.3—29.2mm	29.8 ± 0.6	2.03 ± 0.04	23.5 ± 0.4
Cambridge	F;HP 85mm	0.8567	38.3—39.0mm	**	**	**
Cambridge	F;SP 85mm	0.8435	34.1—37.0mm	0.7 ± 0.1	0.10 ± 0.01	1.2 ± 0.1
Cambridge 100's	F;SP 100mm	0.9783	37.2—39.8mm	3.3 ± 0.2	0.33 ± 0.01	5.1 ± 0.2
Camel	R;NF;SP 70mm	0.8527	23.0mm	20.1 ± 0.4	1.28 ± 0.02	12.2 ± 0.3
Camel	F;SP 85mm	0.9646	27.4—28.4mm	15.4 ± 0.2	1.02 ± 0.03	15.2 ± 0.4
Camel Lights	F;HP 80mm	0.9055	28.6—30.5mm	7.6 ± 0.3	0.68 ± 0.02	7.7 ± 0.3
Camel Lights	F;SP 85mm	0.9280	32.4—33.9mm	8.0 ± 0.2	0.67 − 0.03	10.2 + 0.4
Camel Lights 100's	F;SP 100mm	1.1187	36.1—38.6mm	12.0 ± 0.2	0.84 + 0.02	14.8 ± 0.4
Carlton	F;HP 85mm	0.8129	38.0—39.9mm	**	**	**
Carlton	F;SP 85mm	0.8070	32.0—34.6mm	0.9 ± 0.1	0.12 ± 0.01	1.6 ± 0.1
Carlton	F;SP;M 85mm	0.7828	32.3—34.8mm	**	0.08 ± 0.01	0.9 ± 0.1
Carlton 100's	F;HP 100mm	0.9316	36.5—39.7mm	0.6 ± 0.1	0.09 ± 0.01	0.7 ± 0.1
Carlton 100's	F;HP;M 100mm	0.8834	37.0—38.8mm	**	0.07 ± 0.01	**
Carlton 100's	F;SP 100mm	0.9486	33.3—36.3mm	4.1 ± 0.3	0.41 ± 0.02	5.6 ± 0.3
Carlton 100's	F;SP;M 100mm	0.9462	33.7—37.0mm	4.1 ± 0.3	0.40 ± 0.03	5.4 ± 0.5
Carlton 120's	F;SP 120mm	1.0043	36.3—39.9mm	5.8 ± 0.2	0.55 ± 0.02	4.4 ± 0.2
Carlton 120's	F;SP;M 120mm	1.0058	36.9—41.0mm	6.0 ± 0.3	0.57 ± 0.03	4.5 ± 0.3
Chesterfield	R;NF;SP 70mm	0.8637	23.0mm	20.2 ± 0.4	1.31 ± 0.03	12.5 ± 0.5
Chesterfield	NF;SP 85mm	1.0299	23.0mm	23.9 ± 0.7	1.59 ± 0.06	14.4 ± 0.3
Chesterfield	F;SP 85mm	0.8885	28.0—30.0mm	15.0 ± 0.3	1.04 ± 0.04	15.0 ± 0.3
Chesterfield 100's	F;SP 100mm	1.0258	34.3—38.7mm	15.2 ± 0.3	1.06 ± 0.02	16.6 ± 0.4
Decade	F;SP 85mm	0.8432	32.4—34.2mm	5.2 ± 0.2	0.48 ± 0.02	4.8 ± 0.3
Decade	F;SP;M 85mm	0.8505	32.3—34.3mm	5.0 ± 0.3	0.44 ± 0.02	4.4 ± 0.3
Decade 100's	F;SP 100mm	0.9596	37.5—39.3mm	8.1 ± 0.2	0.75 ± 0.02	6.2 ± 0.3
Doral II	F;SP 85mm	1.0443	36.5—38.5mm	4.3 ± 0.3	0.40 ± 0.03	3.8 ± 0.3
Doral II	F;SP;M 85mm	1.0307	35.1—39.0mm	4.1 ± 0.3	0.39 ± 0.02	3.5 ± 0.2
DuMaurier	F;HP 85mm	0.9894	27.9—30.5mm	15.8 ± 0.3	1.02 ± 0.03	17.7 ± 0.4
English Ovals	R;NF;HP 70mm	0.9004	23.0mm	23.2 ± 0.4	1.69 ± 0.04	12.1 ± 0.3
English Ovals	NF;HP 85mm	1.1437	23.0mm	26.7 ± 0.7	2.03 ± 0.07	13.4 ± 0.5
Eve Lights 100's	F;SP 100mm	0.9633	36.9—39.9mm	12.6 ± 0.4	0.97 ± 0.03	13.4 ± 0.6
Eve Lights 100's	F;SP;M 100mm	0.9703	37.6—39.0mm	12.6 ± 0.4	0.97 ± 0.02	12.9 ± 0.4
Eve Lights 120's	F;HP 120mm	0.9717	36.9—39.4mm	13.5 ± 0.5	1.10 ± 0.02	10.9 ± 0.5
Eve Lights 120's	F;HP;M 120mm	0.9891	36.6—39.1mm	13.6 ± 0.4	1.11 ± 0.03	10.9 ± 0.4
Galaxy	F;HP 85mm	1.0899	32.3—33.7mm	15.7 ± 0.3	0.99 ± 0.02	16.0 ± 0.3
Golden Lights	F;SP 85mm	0.8616	32.2—36.8mm	7.9 ± 0.3	0.70 ± 0.03	8.6 ± 0.5
Golden Lights	F;SP;M 85mm	0.8666	33.9—37.1mm	8.7 ± 0.3	0.76 ± 0.03	9.3 ± 0.3
Golden Lights 100's	F;SP 100mm	1.0267	36.1—39.8mm	8.8 ± 0.3	0.78 − 0.02	9.0 ± 0.6
Golden Lights 100's	F;SP;M 100mm	1.0353	36.3—39.5mm	8.3 ± 0.4	0.75 ± 0.02	8.4 ± 0.5

① TPM dry (tar)—milligrams total particulate matter less nicotine and water.
② Milligrams total alkaloids reported as nicotine.
③ R—regular; F—filter; NF—non-filter; M—menthol; HP—hard pack; SP—soft pack; mm—millimeter.
④ Average weight reported in grams.
⑤ Range used in butt length because of variance of overwrap.
⑥ Tolerance shown is twice the standard deviation.
* See statement in text concerning Barclay.
** Below the sensitivity of the method.

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BRAND	TYPE③	AVERAGE WEIGHT④	BUTT LENGTH⑤	TPM DRY①⑥	NICOTINE②	CARBON MONOXIDE
Half & Half	F;SP 85mm	1.1249	25.5—29.1mm	17.5 ± 0.5	1.39 ± 0.05	16.5 ± 0.5
Herbert Tareyton	NF;SP 85mm	1.1308	23.0mm	27.9 ± 0.6	1.82 ± 0.05	18.7 ± 0.7
Iceberg 100's	F;SP;M 100mm	0.9414	33.7—38.5mm	2.6 ± 0.1	0.27 ± 0.02	3.5 ± 0.2
Kent	F;HP 80mm	0.8927	27.5—28.6mm	12.7 ± 0.2	0.93 ± 0.02	12.7 ± 0.3
Kent	F;SP 85mm	0.9225	27.4—29.3mm	12.4 ± 0.4	0.95 ± 0.03	12.3 ± 0.5
Kent III	F;SP 85mm	0.8325	33.5—37.1mm	2.4 ± 0.2	0.28 ± 0.03	2.4 ± 0.2
Kent 100's	F;SP 100mm	1.0614	34.0—37.1mm	14.2 ± 0.3	1.08 ± 0.03	13.2 ± 0.4
Kent 100's	F;SP;M 100mm	1.0508	33.0—36.1mm	14.9 ± 0.4	1.22 ± 0.03	13.5 ± 0.3
Kent III 100's	F;SP 100mm	0.9845	37.4—39.3mm	4.7 ± 0.2	0.49 ± 0.02	6.3 ± 0.2
Kool	R;NF;SP;M 70mm	0.8923	23.0mm	18.4 ± 0.6	1.03 ± 0.03	13.9 ± 0.7
Kool	F;HP;M 80mm	0.9433	25.6—27.0mm	16.1 ± 0.4	1.10 ± 0.03	16.8 ± 0.5
Kool	F;SP;M 85mm	0.9372	27.7—29.1mm	16.6 ± 0.3	1.12 ± 0.03	15.3 ± 0.4
Kool Lights	F;SP;M 85mm	0.9232	32.1—33.5mm	8.9 ± 0.3	0.67 ± 0.02	10.5 ± 0.3
Kool Milds	F;SP;M 85mm	0.8923	30.9—33.7mm	11.4 ± 0.2	0.81 ± 0.03	12.8 ± 0.4
Kool Super Lights	F;SP;M 85mm	0.9072	32.8—33.2mm	6.0 ± 0.3	0.50 ± 0.02	6.4 ± 0.3
Kool Ultra***	F;SP;M 85mm	0.9119	33.8—36.2mm	1.7 ± 0.2	0.16 ± 0.02	1.3 ± 0.2
Kool Super Longs 100's	F;SP;M 100mm	1.0634	33.8—35.5mm	14.2 ± 0.3	0.95 ± 0.03	16.1 ± 0.3
Kool Lights 100's	F;SP;M 100mm	1.0880	37.9—38.5mm	11.2 ± 0.3	0.86 ± 0.03	11.1 ± 0.4
Kool Milds 100's	F;SP;M 100mm	1.1168	37.5—40.4mm	12.0 ± 0.4	0.88 ± 0.03	13.9 ± 0.5
Kool Super Lights 100's	F;SP;M 100mm	1.1304	38.4—40.6mm	9.4 ± 0.3	0.66 ± 0.02	11.7 ± 0.4
Kool Ultra 100's***	F;SP;M 100mm	1.0840	37.0—39.2mm	4.3 ± 0.4	0.40 ± 0.04	3.7 ± 0.4
L & M	F;HP 80mm	0.8260	26.2—29.6mm	14.4 ± 0.3	0.95 ± 0.02	14.8 ± 0.4
L & M	F;SP 85mm	0.8858	28.9—33.6mm	14.9 ± 0.3	1.02 ± 0.03	15.4 ± 0.3
L & M Lights	F;SP 85mm	0.8302	32.2—33.5mm	8.5 ± 0.3	0.79 ± 0.02	7.1 ± 0.3
L & M 100's	F;SP 100mm	1.0116	37.2—39.4mm	15.2 ± 0.4	1.09 ± 0.03	16.4 ± 0.5
L & M Lights 100's	F;SP 100mm	0.9321	37.5—38.9mm	8.1 ± 0.2	0.81 ± 0.02	6.2 ± 0.2
L & M Lights 100's	F;SP;M 100mm	0.9392	36.9—39.3mm	7.7 ± 0.3	0.76 ± 0.02	5.5 ± 0.2
Lark	F;SP 85mm	0.9833	27.3—28.7mm	15.2 ± 0.5	1.13 ± 0.04	14.3 ± 0.5
Lark Lights	F;SP 85mm	0.9643	32.5—33.6mm	13.7 ± 0.2	1.01 ± 0.02	13.0 ± 0.3
Lark 100's	F;SP 100mm	1.1204	32.2—33.8mm	16.0—0.3	1.22 ± 0.03	15.3 ± 0.4
Lark Lights 100's	F;SP 100mm	1.1283	37.3—38.6mm	14.7 ± 0.3	1.12 ± 0.03	14.2 ± 0.4
Long Johns 120's	F;SP 120mm	1.1913	36.7—39.0mm	19.2 ± 0.6	1.53 ± 0.06	19.1 ± 0.9
Long Johns 120's	F;SP;M 120mm	1.1584	35.5—39.8mm	15.4 ± 0.5	1.28 ± 0.04	16.4 ± 0.6
Lucky Strike	R;NF;SP 70mm	0.8961	23.0mm	23.9 ± 0.7	1.47 ± 0.04	16.3 ± 0.5
Lucky Ten	F;SP 85mm	0.9510	31.8—34.5mm	8.7 ± 0.3	0.70 ± 0.03	10.6 ± 0.4
Lucky 100's	F;SP 100mm	0.9581	32.1—39.1mm	3.2 ± 0.2	0.31 ± 0.02	4.5 ± 0.2
Marlboro	F;HP 80mm	0.9504	25.1—27.0mm	16.4 ± 0.3	1.06 ± 0.03	14.9 ± 0.3
Marlboro	F;HP;M 80mm	0.9316	25.6—26.0mm	15.1 ± 0.4	0.90 ± 0.02	14.4 ± 0.6
Marlboro	F;SP 85mm	0.9865	27.2—29.1mm	16.9 ± 0.3	1.07 ± 0.02	15.2 ± 0.4
Marlboro	F;SP;M 85mm	0.9580	28.6—30.1mm	14.6 ± 0.3	0.88 ± 0.02	14.3 ± 0.4
Marlboro Lights	F;HP 85mm	0.9425	33.1—34.8mm	10.4 ± 0.3	0.71 ± 0.02	11.6 ± 0.3
Marlboro Lights	F;SP 85mm	0.9616	32.4—35.1mm	11.2 ± 0.2	0.78 ± 0.02	12.6 ± 0.4
Marlboro 100's	F;HP 100mm	1.0979	33.8—35.5mm	17.0 ± 0.4	1.12 ± 0.03	16.8 ± 0.4
Marlboro 100's	F;SP 100mm	1.1139	33.5—35.1mm	16.9 ± 0.3	1.12 ± 0.02	16.4 ± 0.3
Marlboro Lights 100's	F;SP 100mm	1.1133	38.0—39.7mm	11.0 ± 0.3	0.82 ± 0.02	12.8 ± 0.5
Max 120's	F;SP 120mm	0.9907	36.6—38.9mm	18.9 ± 0.4	1.50 ± 0.05	17.9 ± 0.5
Max 120's	F;SP;M 120mm	0.9950	36.6—38.9mm	18.3 ± 0.4	1.48 ± 0.02	16.7 ± 0.3
Merit	F;SP 85mm	0.9622	34.1—36.1mm	8.2 ± 0.2	0.58 ± 0.02	10.6 ± 0.2
Merit	F;SP;M 85mm	0.9705	34.5—36.1mm	7.8 ± 0.2	0.57 ± 0.02	10.0 ± 0.3
Merit Ultra Lights	F;SP 85mm	0.9107	33.8—36.0mm	3.6 ± 0.2	0.33 ± 0.02	4.2 ± 0.2
Merit Ultra Lights	F;SP;M 85mm	0.9107	34.3—36.5mm	3.4 ± 0.1	0.28 ± 0.03	3.7 ± 0.2
Merit 100's	F;SP 100mm	1.1051	38.0—40.1mm	10.8 ± 0.4	0.74 ± 0.02	12.7 ± 0.4
Merit 100's	F;SP;M 100mm	1.1113	37.7—40.0mm	9.4 ± 0.2	0.68 ± 0.02	11.3 ± 0.4
Montclair	F;SP;M 85mm	0.9057	25.8—28.6mm	15.2 ± 0.4	0.99 ± 0.04	15.5 ± 0.3
More Lights 100's	F;HP 100mm	0.9190	37.2—39.1mm	8.6 ± 0.4	0.68 ± 0.02	9.2 ± 0.4
More Lights 100's	F;HP;M 100mm	0.8712	36.7—39.8mm	7.5 ± 0.3	0.63 ± 0.02	9.3 ± 0.4
More 120's	F;SP 120mm	1.0196	41.0—43.2mm	17.3 ± 0.4	1.23 ± 0.03	21.0 ± 0.7
More 120's	F;SP;M 120mm	1.0174	40.3—44.0mm	15.7 ± 0.5	1.23 ± 0.03	19.3 ± 0.7
Multifilter	F;SP 85mm	1.1297	31.9—33.9mm	12.4 ± 0.3	0.82 ± 0.02	11.6 ± 0.3
Multifilter	F;SP;M 85mm	1.1240	32.5—33.9mm	11.4 ± 0.5	0.78 ± 0.03	10.2 ± 0.5
Newport	F;HP;M 80mm	0.8623	27.3—29.6mm	15.5 ± 0.4	1.10 ± 0.03	16.4 ± 0.5

① TPM dry (tar)—milligrams total particulate matter less nicotine and water.
② Milligrams total alkaloids reported as nicotine.
③ R—regular; F—filter; NF—non-filter; M—menthol; HP—hard pack; SP—soft pack; mm—millimeter
④ Average weight reported in grams.
⑤ Range used in butt length because of variance of overwrap.
⑥ Tolerance shown is twice the standard deviation.
** Below the sensitivity of the method.
*** See statement in text concerning Kool Ultra.

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BRAND	TYPE③	AVERAGE WEIGHT④	BUTT LENGTH⑤	TPM DRY①⑥	NICOTINE②	CARBON MONOXIDE
Newport	F;SP;M 85mm	0.9179	27.0—30.2mm	16.8 ± 0.4	1.22 ± 0.03	17.5 ± 0.4
Newport Lights	F;HP;M 80mm	0.8517	31.9—34.9mm	9.0 ± 0.3	0.74 ± 0.02	9.5 ± 0.3
Newport Lights	F;SP;M 85mm	0.8669	32.4—36.4mm	8.8 ± 0.3	0.73 ± 0.02	9.6 ± 0.3
Newport Red	F;HP 80mm	0.8800	32.1—33.8mm	13.2 ± 0.2	1.06 ± 0.02	14.2 ± 0.3
Newport Red	F;SP 85mm	0.9034	32.0—34.3mm	13.3 ± 0.2	1.04 ± 0.03	14.9 ± 0.3
Newport 100's	F;SP;M 100mm	1.0447	33.7—36.2mm	20.1 ± 0.3	1.43 ± 0.03	19.5 ± 0.5
Newport Lights 100's	F;SP;M 100mm	1.0360	36.7—40.0mm	9.2 ± 0.5	0.80 ± 0.04	9.6 ± 0.6
Northwind	F;SP;M 85mm	0.9999	34.7—35.7mm	8.2 ± 0.2	0.57 ± 0.02	10.2 ± 0.2
Northwind 100's	F;SP;M 100mm	1.1452	38.1—40.2mm	8.9 ± 0.3	0.61 ± 0.02	10.6 ± 0.3
Now	F;HP 80mm	0.6780	32.0—35.3mm	**	**	**
Now	F;SP 85mm	0.7851	35.9—38.8mm	1.0 ± 0.1	0.13 ± 0.01	1.5 ± 0.2
Now	F;SP;M 85mm	0.7847	36.8—38.2mm	0.8 ± 0.1	0.11 ± 0.01	1.2 ± 0.2
Now 100's	F;HP 100mm	0.6772	35.5—40.1mm	**	**	**
Now 100's	F;SP 100mm	0.9275	37.2—38.8mm	2.1 ± 0.1	0.23 ± 0.01	1.6 ± 0.2
Now 100's	F;SP;M 100mm	0.9305	36.1—39.2mm	1.9 ± 0.2	0.22 ± 0.02	1.4 ± 0.1
Oasis	F;SP;M 85mm	0.9075	26.9—28.9mm	15.1 ± 0.4	0.98 ± 0.03	14.9 ± 0.4
Old Gold Straight	NF;SP 85mm	0.9859	23.0mm	25.9 ± 0.5	1.61 ± 0.03	16.6 ± 0.5
Old Gold Filter	F;SP 85mm	0.9186	27.0—30.8mm	17.0 ± 0.3	1.26 ± 0.02	18.5 ± 0.5
Old Gold Lights	F;SP 85mm	0.8764	33.1—36.6mm	9.6 ± 0.3	0.85 ± 0.03	10.2 ± 0.4
Old Gold Filter 100's	F;SP 100mm	1.0361	33.8—35.8mm	19.8 ± 0.3	1.49 ± 0.03	19.3 ± 0.3
Omni 100's	F;SP;M 100mm	1.0286	37.0—39.1mm	7.6 ± 0.2	0.70 ± 0.02	6.4 ± 0.2
Pall Mall	NF;SP 85mm	1.0675	23.0mm	24.3 ± 0.5	1.56 ± 0.03	16.4 ± 0.4
Pall Mall	F;SP 85mm	0.9910	26.3—28.4mm	17.7 ± 0.3	1.21 ± 0.03	18.1 ± 0.5
Pall Mall Extra Light	F;SP 85mm	0.9800	31.9—35.0mm	6.3 ± 0.2	0.59 ± 0.02	6.8 ± 0.2
Pall Mall 100's	F;SP 100mm	1.1067	33.5—36.4mm	16.4 ± 0.3	1.24 ± 0.03	16.4 ± 0.3
Pall Mall Light 100's	F;SP 100mm	1.0906	36.3—39.3mm	8.9 ± 0.3	0.78 ± 0.03	8.2 ± 0.2
Pall Mall Light 100's	F;SP;M 100mm	1.0395	33.3—36.2mm	12.8 ± 0.3	1.05 ± 0.04	12.6 ± 0.3
Parliament Lights	F;HP 80mm	0.9511	31.6—34.3mm	8.6 ± 0.4	0.64 ± 0.02	9.3 ± 0.4
Parliament Lights	F;SP 85mm	1.0073	32.0—36.2mm	9.5 ± 0.2	0.69 ± 0.02	10.7 ± 0.4
Parliament Lights 100's	F;SP 100mm	1.2469	37.5—39.7mm	11.9 ± 0.3	0.89 ± 0.02	11.2 ± 0.4
Philip Morris	R;NF;SP 70mm	0.8677	23.0mm	21.6 ± 0.4	1.36 ± 0.04	12.3 ± 0.4
Philip Morris Commander	NF;SP 85mm	1.0422	23.0mm	26.4 ± 0.6	1.69 ± 0.04	14.9 ± 0.4
Philip Morris Intern'l 100's	F;HP 100mm	1.0956	34.3—35.8mm	17.5 ± 0.5	1.12 ± 0.03	16.0 ± 0.5
Philip Morris Intern'l 100's	F;HP;M 100mm	1.0774	34.6—35.9mm	15.6 ± 0.4	0.98 ± 0.02	16.2 ± 0.4
Picayune	R;NF;SP 70mm	0.8511	23.0mm	17.8 ± 0.6	1.15 ± 0.04	14.1 ± 0.6
Players	R;NF;SP 70mm	1.0357	23.0mm	24.9 ± 0.5	1.83 ± 0.04	14.4 ± 0.3
Raleigh	NF;SP 85mm	1.0235	23.0mm	23.0 ± 0.6	1.28 ± 0.04	16.9 ± 0.4
Raleigh	F;SP 85mm	0.9573	28.0—29.7mm	15.8 ± 0.4	0.96 ± 0.03	17.5 ± 0.5
Raleigh Lights	F;SP 85mm	0.9529	31.4—34.2mm	8.6 ± 0.3	0.69 ± 0.02	10.0 ± 0.5
Raleigh 100's	F;SP 100mm	1.1298	33.8—35.5mm	16.7 ± 0.3	1.05 ± 0.02	18.1 ± 0.5
Raleigh Lights 100's	F;SP 100mm	1.1558	37.3—39.8mm	10.0 ± 0.2	0.78 ± 0.02	12.7 ± 0.4
St. Moritz 100's	F;SP 100mm	1.0417	35.9—37.5mm	14.5 ± 0.3	1.10 ± 0.03	14.5 ± 0.4
St. Moritz 100's	F;SP;M 100mm	1.0498	35.7—37.4mm	14.7 ± 0.3	1.15 ± 0.03	14.6 ± 0.4
Salem	F;SP;M 85mm	0.9706	27.2—28.3mm	14.7 ± 0.4	1.02 ± 0.02	13.8 ± 0.4
Salem Lights	F;SP;M 85mm	0.9533	33.0—35.5mm	8.3 ± 0.2	0.64 ± 0.02	10.5 ± 0.3
Salem Ultra	F;SP;M 85mm	0.9106	32.2—33.7mm	4.5 ± 0.3	0.42 ± 0.02	4.9 ± 0.3
Salem 100's	F;SP;M 100mm	1.1400	33.9—35.4mm	14.9 ± 0.3	1.13 ± 0.03	13.5 ± 0.3
Salem Lights 100's	F;SP;M 100mm	1.1149	36.2—37.9mm	9.5 ± 0.3	0.74 ± 0.02	11.6 ± 0.3
Salem Ultra 100's	F;SP;M 100mm	1.0796	36.5—39.0mm	4.6 ± 0.2	0.42 ± 0.02	6.3 ± 0.3
Saratoga 120's	F;HP 120mm	1.0985	36.8—39.0mm	15.1 ± 0.8	1.02 ± 0.04	15.8 ± 0.9
Saratoga 120's	F;HP;M 120mm	1.1164	37.3—40.0mm	15.5 ± 0.4	1.04 ± 0.03	15.7 ± 0.6
Silva Thins 100's	F;SP 100mm	0.9319	34.0—36.0mm	12.4 ± 0.3	1.09 ± 0.02	10.3 ± 0.3
Silva Thins 100's	F;SP;M 100mm	0.9372	33.7—35.6mm	12.5 ± 0.3	1.10 ± 0.02	10.2 ± 0.3
Spring 100's	F;SP 100mm	1.0780	33.8—36.0mm	20.1 ± 0.4	1.10 ± 0.03	18.0 ± 0.4
Tall 120's	F;SP 120mm	1.2116	36.0—39.7mm	18.7 ± 0.6	1.52 ± 0.05	19.4 ± 0.8
Tall 120's	F;SP;M 120mm	1.1740	36.4—40.7mm	16.6 ± 0.4	1.34 ± 0.04	17.6 ± 0.6
Tareyton	F;SP 85mm	1.0070	25.4—28.4mm	14.5 ± 0.3	1.01 ± 0.02	15.9 ± 0.3
Tareyton Lights	F;SP 85mm	0.8831	33.7—36.7mm	4.6 ± 0.2	0.40 ± 0.03	4.7 ± 0.2
Tareyton Ultra Low Tar	F;SP;M 85mm	0.9040	33.5—36.7mm	0.8 ± 0.2	0.09 ± 0.01	0.7 ± 0.2
Tareyton 100's	F;SP 100mm	1.1540	33.0—36.4mm	14.6 ± 0.3	1.09 ± 0.03	16.8 ± 0.4

① TPM dry (tar)—milligrams total particulate matter less nicotine and water.
② Milligrams total alkaloids reported as nicotine.
③ R—regular; F—filter; NF—non-filter, M—menthol; HP—hard pack; SP—soft pack; mm—millimeter.
④ Average weight reported in grams.
⑤ Range used in butt length because of variance of overwrap.
⑥ Tolerance shown is twice the standard deviation.
** Below the sensitivity of the method.

PM3001060758

Source: https://www.industrydocuments.ucsf.edu/docs/pfkk0001

BRAND	TYPE③		AVERAGE WEIGHT④	BUTT LENGTH⑤	TPM DRY①④	NICOTINE②	CARBON MONOXIDE
Tareyton Long Lights 100's	F;SP	100mm	1.1472	34.0—37.2mm	7.4 ± 0.3	0.65 ± 0.02	7.4 ± 0.4
Triumph	F;SP	85mm	0.8197	34.0—35.5mm	2.4 ± 0.2	0.32 ± 0.02	2.5 ± 0.2
Triumph	F;SP;M	85mm	0.8075	33.7—36.3mm	2.7 ± 0.2	0.36 ± 0.04	2.9 ± 0.3
Triumph 100's	F;SP	100mm	0.9702	37.1—39.1mm	4.4 ± 0.2	0.50 ± 0.02	5.7 ± 0.4
Triumph 100's	F;SP;M	100mm	0.9797	37.1—39.3mm	4.0 ± 0.3	0.47 ± 0.02	5.3 ± 0.3
True	F;SP	85mm	0.8038	32.5—33.6mm	4.6 ± 0.2	0.41 ± 0.01	4.8 ± 0.2
True	F;SP;M	85mm	0.8161	32.3—33.8mm	4.7 ± 0.4	0.43 ± 0.02	5.2 ± 0.3
True 100's	F;SP	100mm	0.9806	34.0—35.7mm	7.3 ± 0.4	0.61 ± 0.02	8.5 ± 0.3
True 100's	F;SP;M	100mm	0.9878	34.1—36.9mm	7.4 ± 0.3	0.63 ± 0.02	8.6 ± 0.3
Vantage	F;SP	85mm	1.0439	32.5—34.0mm	9.0 ± 0.2	0.70 ± 0.02	12.9 ± 0.2
Vantage	F;SP;M	85mm	1.0898	32.5—34.6mm	8.8 ± 0.2	0.63 ± 0.02	13.0 ± 0.2
Vantage Ultra Lights	F;SP	85mm	0.9304	31.9—33.3mm	4.2 ± 0.2	0.40 ± 0.02	4.9 ± 0.3
Vantage 100's	F;SP	100mm	1.2344	33.8—35.2mm	8.7 ± 0.3	0.66 ± 0.02	12.2 ± 0.5
Vantage Ultra Lights 100's	F;SP	100mm	1.1125	35.6—37.8mm	4.4 ± 0.3	0.45 ± 0.02	5.5 ± 0.4
Viceroy	F;SP	85mm	0.9530	27.5—29.6mm	15.0 ± 0.3	0.91 ± 0.03	17.1 ± 0.4
Viceroy Rich Lights	F;SP	85mm	0.9693	31.4—34.4mm	8.6 ± 0.3	0.69 ± 0.03	10.5 ± 0.4
Viceroy Super Long 100's	F;SP	100mm	1.1045	33.4—35.5mm	15.2 ± 0.3	1.01 ± 0.03	17.7 ± 0.5
Viceroy Rich Lights 100's	F;SP	100mm	1.1620	37.5—40.9mm	9.7 ± 0.3	0.77 ± 0.02	12.5 ± 0.4
Virginia Slims 100's	F;SP	100mm	0.9434	34.4—36.6mm	15.1 ± 0.3	1.02 ± 0.02	14.3 ± 0.3
Virginia Slims 100's	F;SP;M	100mm	0.9496	34.3—36.2mm	15.2 ± 0.3	1.02 ± 0.02	13.9 ± 0.4
Virginia Slims Lights 100's	F;HP	100mm	0.9624	38.3—40.2mm	8.6 ± 0.3	0.65 ± 0.02	8.9 ± 0.3
Virginia Slims Lights 100's	F;HP;M	100mm	0.9642	38.0—40.5mm	7.9 ± 0.3	0.61 ± 0.02	7.9 ± 0.4
Winston	F;HP	80mm	0.9577	25.1—26.9mm	16.4 ± 0.3	1.02 ± 0.03	15.8 ± 0.3
Winston	F;HP	85mm	0.9540	27.0—28.1mm	15.1 ± 0.3	1.01 ± 0.03	16.3 ± 0.3
Winston Lights	F;SP	85mm	0.9594	31.1—34.6mm	10.7 ± 0.3	0.79 ± 0.02	11.2 ± 0.4
Winston Ultra	F;SP	85mm	0.8124	33.2—35.6mm	3.7 ± 0.2	0.38 ± 0.02	4.4 ± 0.2
Winston 100's	F;SP	100mm	1.1175	33.5—35.2mm	14.3 ± 0.4	0.97 ± 0.02	14.5 ± 0.4
Winston Lights 100's	F;SP	100mm	1.1184	36.2—38.3mm	12.0 ± 0.4	0.82 ± 0.02	14.9 ± 0.6
Winston Ultra 100's	F;SP	100mm	1.0580	37.0—38.2mm	4.8 ± 0.2	0.43 ± 0.01	6.4 ± 0.3
Winston International 100's	F;HP	100mm	1.0749	31.8—34.6mm	18.2 ± 0.3	1.32 ± 0.03	17.1 ± 0.3

① TPM dry (tar)—milligrams total particulate matter less nicotine and water.
② Milligrams total alkaloids reported as nicotine.
③ R—regular; F—filter; NF—non-filter; M—menthol; HP—hard pack; SP—soft pack; mm—millimeter.
④ Average weight reported in grams.
⑤ Range used in butt length because of variance of overwrap
⑥ Tolerance shown is twice the standard deviation.
** Below the sensitivity of the method.

PM3001060759

Source: https://www.industrydocuments.ucsf.edu/docs/pfkk0001

TAR①, NICOTINE② AND CARBON MONOXIDE③ CONTENT OF TWO HUNDRED-EIGHT (208) VARIETIES OF DOMESTIC CIGARETTES

(shown in increasing order of "tar" values)

BRAND	TYPE	TAR③ (mg/cig)	NICOTINE③ (mg/cig)	CARBON MONOXIDE③ (mg/cig)
Now	king size, filter, (hard pack)	<0.5	0.1	<0.5
Carlton	king size, filter, (hard pack)	<0.5	0.1	<0.5
Now 100's	100 mm, filter, (hard pack)	<0.5	<0.05	<0.5
Cambridge	king size, filter, (hard pack)	<0.5	<0.05	1
Carlton 100's	100 mm, filter, menthol, (hard pack)	<0.5	0.1	<0.5
Carlton	king size, filter, menthol	<0.5	0.1	1
Carlton 100's	100 mm, filter, (hard pack)	1	0.1	1
Barclay*	king size, filter	1	0.1	1
Cambridge	king size, filter	1	0.1	1
Tareyton Ultra Low Tar	king size, filter, menthol	1	0.1	1
Now	king size, filter, menthol	1	0.1	1
Benson & Hedges	reg. size, filter, (hard pack)	1	0.1	2
Carlton	king size, filter	1	0.1	2
Now	king size, filter	1	0.1	1
Barclay*	king size, filter, menthol	1	0.1	1
Barclay*	king size, filter, (hard pack)	1	0.2	1
Kool Ultra***	king size, filter, menthol	2	0.2	1
Now 100's	100 mm, filter, menthol	2	0.2	1
Now 100's	100 mm, filter	2	0.2	2
Triumph	king size, filter	2	0.3	2
Kent III	king size, filter	2	0.3	2
Iceberg 100's	100 mm, filter, menthol	3	0.3	4
Triumph	king size, filter, menthol	3	0.4	3
Barclay 100's*	100 mm, filter	3	0.3	2
Lucky 100's	100 mm, filter	3	0.3	4
Cambridge 100's	100 mm, filter	3	0.3	5
Barclay 100's*	100 mm, filter, menthol	3	0.3	3
Merit Ultra Lights	king size, filter, menthol	3	0.3	4
Merit Ultra Lights	king size, filter	4	0.3	4
Winston Ultra	king size, filter	4	0.4	4
Triumph 100's	100 mm, filter, menthol	4	0.5	5
Carlton 100's	100 mm, filter, menthol	4	0.4	5
Doral II	king size, filter, menthol	4	0.4	3
Carlton 100's	100 mm, filter	4	0.4	6
Vantage Ultra Lights	king size, filter	4	0.4	5
Kool Ultra 100's***	100 mm, filter, menthol	4	0.4	4
Doral II	king size, filter	4	0.4	4
Vantage Ultra Lights 100's	100 mm, filter	4	0.4	5
Triumph 100's	100 mm, filter	4	0.5	6
Salem Ultra	king size, filter, menthol	5	0.4	5
Tareyton Lights	king size, filter	5	0.4	5
True	king size, filter	5	0.4	5
Salem Ultra 100's	100 mm, filter, menthol	5	0.4	6
Kent III 100's	100 mm, filter	5	0.5	6
True	king size, filter, menthol	5	0.4	5
Winston Ultra 100's	100 mm, filter	5	0.4	6
Decade	king size, filter, menthol	5	0.4	4
Decade	king size, filter	5	0.5	5
Carlton 120's	120 mm, filter	6	0.6	4
Carlton 120's	120 mm, filter, menthol	6	0.6	5
Kool Super Lights	king size, filter, menthol	6	0.5	6
Pall Mall Extra Light	king size, filter	6	0.6	7
True 100's	100 mm, filter	7	0.6	8
Tareyton Long Lights 100's	100 mm, filter	7	0.6	7
True 100's	100 mm, filter, menthol	7	0.6	9
More Lights 100's	100 mm, filter, menthol, (hard pack)	8	0.6	9
Omni 100's	100 mm, filter, menthol	8	0.7	6
Camel Lights	king size, filter, (hard pack)	8	0.7	8
L & M Lights 100's	100 mm, filter, menthol	8	0.8	6

① TPM dry (tar)—milligrams total particulate matter less nicotine and water.
② Milligrams total alkaloids reported as nicotine.
③ All results below 0.5 mg. "tar," 0.05 mg. nicotine and 0.5 mg. carbon monoxide reported as <0.5, <0.05, and <0.5, respectively.
* See statement in text concerning Barclay.
*** See statement in text concerning Kool Ultra.

Source: https://www.industrydocuments.ucsf.edu/docs/pfkk0001

BRAND	TYPE	TAR② (mg/cig)	NICOTINE② (mg/cig)	CARBON MONOXIDE② (mg/cig)
Merit	king size, filter, menthol	8	0.6	10
Golden Lights	king size, filter	8	0.7	9
Virginia Slims Lights 100's	100 mm, filter, menthol, (hard pack)	8	0.6	8
Camel Lights	king size, filter	8	0.7	10
Decade 100's	100 mm, filter	8	0.7	6
L & M Lights 100's	100 mm, filter	8	0.8	6
Merit	king size, filter	8	0.6	11
Northwind	king size, filter, menthol	8	0.6	10
Golden Lights 100's	100 mm, filter, menthol	8	0.7	8
Salem Lights	king size, filter, menthol	8	0.6	11
L & M Lights	king size, filter	9	0.8	7
Viceroy Rich Lights	king size, filter	9	0.7	10
Raleigh Lights	king size, filter	9	0.7	10
Virginia Slims Lights 100's	100 mm, filter, (hard pack)	9	0.7	9
More Lights 100's	100 mm, filter, (hard pack)	9	0.7	9
Parliament Lights	king size, filter, (hard pack)	9	0.6	9
Golden Lights	king size, filter, menthol	9	0.8	9
Lucky Ten	king size, filter	9	0.7	11
Vantage 100's	100 mm, filter	9	0.7	12
Golden Lights 100's	100 mm, filter	9	0.8	9
Vantage	king size, filter, menthol	9	0.6	13
Newport Lights	king size, filter, menthol	9	0.7	10
Northwind 100's	100 mm, filter, menthol	9	0.6	11
Pall Mall Light 100's	100 mm, filter	9	0.8	8
Kool Lights	king size, filter, menthol	9	0.7	10
Newport Lights	king size, filter, menthol, (hard pack)	9	0.7	9
Vantage	king size, filter	9	0.7	13
Belair	king size, filter, menthol	9	0.7	10
Newport Lights 100's	100 mm, filter, menthol	9	0.8	10
Kool Super Lights 100's	100 mm, filter, menthol	9	0.7	12
Merit 100's	100 mm, filter, menthol	9	0.7	11
Belair 100's	100 mm, filter, menthol	9	0.7	11
Parliament Lights	king size, filter	9	0.7	11
Salem Lights 100's	100 mm, filter, menthol	10	0.7	12
Old Gold Lights	king size, filter	10	0.9	10
Viceroy Rich Lights 100's	100 mm, filter	10	0.8	12
Raleigh Lights 100's	100 mm, filter	10	0.8	13
Marlboro Lights	king size, filter, (hard pack)	10	0.7	12
Benson & Hedges Lights 100's	100 mm, filter, menthol	11	0.8	12
Winston Lights	king size, filter	11	0.8	11
Merit 100's	100 mm, filter	11	0.7	13
Benson & Hedges Lights 100's	100 mm, filter	11	0.8	13
Benson & Hedges Lights 100's	100 mm, filter, menthol, (hard pack)	11	0.8	12
Marlboro Lights 100's	100 mm, filter	11	0.8	13
Marlboro Lights	king size, filter	11	0.8	13
Kool Lights 100's	100 mm, filter, menthol	11	0.9	11
Multifilter	king size, filter, menthol	11	0.8	10
Kool Milds	king size, filter, menthol	11	0.8	13
Benson & Hedges Lights 100's	100 mm, filter, (hard pack)	11	0.8	13
Parliament Lights 100's	100 mm, filter	12	0.9	11
Winston Lights 100's	100 mm, filter	12	0.8	15
Kool Milds 100's	100 mm, filter, menthol	12	0.9	14
Camel Lights 100's	100 mm, filter	12	0.8	15
Multifilter	king size, filter	12	0.8	12
Kent	king size, filter	12	0.9	12
Silva Thins 100's	100 mm, filter	12	1.1	10
Silva Thins 100's	100 mm, filter, menthol	12	1.1	10
Eve Lights100's	100 mm, filter, menthol	13	1.0	13
Eve Lights100's	100 mm, filter	13	1.0	13
Kent	king size, filter, (hard pack)	13	0.9	13
Pall Mall Light 100's	100 mm, filter, menthol	13	1.1	13
Newport Red	king size, filter, (hard pack)	13	1.1	14
Newport Red	king size, filter	13	1.0	15
Eve Lights 120's	120 mm, filter, (hard pack)	13	1.1	11
Eve Lights 120's	120 mm, filter, menthol, (hard pack)	14	1.1	11
Lark Lights	king size, filter	14	1.0	13

② All results below 0.5 mg "tar," 0.05 mg. nicotine and 0.5 mg. carbon monoxide reported as < 0.5, < 0.05, and < 0.5, respectively.

PM3001060761

Source: https://www.industrydocuments.ucsf.edu/docs/pfkk0001

BRAND	TYPE	TAR③ (mg/cig)	NICOTINE③ (mg/cig)	CARBON MONOXIDE③ (mg/cig)
Alpine	king size, filter, menthol	14	0.9	14
Kent 100's	100 mm, filter	14	1.1	13
Kool Super Long 100's	100 mm, filter, menthol	14	1.0	16
Winston 100's	100 mm, filter	14	1.0	14
L & M	king size, filter, (hard pack)	14	1.0	15
Tareyton	king size, filter	14	1.0	16
St. Moritz 100's	100 mm, filter	15	1.1	15
Tareyton 100's	100 mm, filter	15	1.1	17
Marlboro	king size, filter, menthol	15	0.9	14
Salem	king size, filter, menthol	15	1.0	14
St. Moritz 100's	100 mm, filter, menthol	15	1.1	15
Lark Lights 100's	100 mm, filter	15	1.1	14
Kent 100's	100 mm, filter, menthol	15	1.2	14
Salem 100's	100 mm, filter, menthol	15	1.1	14
L & M	king size, filter	15	1.0	15
Viceroy	king size, filter	15	0.9	17
Chesterfield	king size, filter	15	1.0	15
Saratoga 120's	120 mm, filter, (hard pack)	15	1.0	16
Virginia Slims 100's	100 mm, filter	15	1.0	14
Marlboro	king size, filter, menthol, (hard pack)	15	0.9	14
Winston	king size, filter	15	1.0	16
Oasis	king size, filter, menthol	15	1.0	15
Chesterfield 100's	100 mm, filter	15	1.1	17
Viceroy Super Long 100's	100 mm, filter	15	1.0	18
L & M 100's	100 mm, filter	15	1.1	16
Montclair	king size, filter, menthol	15	1.0	16
Virginia Slims 100's	100 mm, filter, menthol	15	1.0	14
Lark	king size, filter	15	1.1	14
Long Johns 120's	120 mm, filter, menthol	15	1.3	16
Camel	king size, filter	15	1.0	15
Saratoga 120's	120 mm, filter, menthol, (hard pack)	15	1.0	16
Newport	king size, filter, menthol, (hard pack)	16	1.1	16
Philip Morris International 100's	100 mm, filter, menthol, (hard pack)	16	1.0	16
More 120's	120 mm, filter, menthol	16	1.2	19
Galaxy	king size, filter	16	1.0	16
Raleigh	king size, filter	16	1.0	17
DuMaurier	king size, filter, (hard pack)	16	1.0	18
Benson & Hedges 100's	100 mm, filter, (hard pack)	16	1.1	15
Benson & Hedges	king size, filter, (hard pack)	16	1.2	13
Lark 100's	100 mm, filter	16	1.2	15
Kool	kings size, filter, menthol, (hard pack)	16	1.1	17
Benson & Hedges 100's	100 mm, filter, menthol, (hard pack)	16	1.1	15
Pall Mall 100's	100 mm, filter	16	1.2	16
Winston	king size, filter, (hard pack)	16	1.0	16
Marlboro	king size, filter, (hard pack)	16	1.1	15
Benson & Hedges 100's	100 mm, filter, menthol	17	1.1	16
Kool	king size, filter, menthol	17	1.1	15
Tall 120's	120 mm, filter, menthol	17	1.3	18
Raleigh 100's	100 mm, filter	17	1.0	18
Newport	king size, filter, menthol	17	1.2	17
Benson & Hedges 100's	100 mm, filter	17	1.1	16
Marlboro 100's	100 mm, filter	17	1.1	16
Marlboro	king size, filter	17	1.1	15
Marlboro 100's	100 mm, filter, (hard pack)	17	1.1	17
Old Gold Filter	king size, filter	17	1.3	18
More 120's	120 mm, filter	17	1.2	21
Philip Morris International 100's	100 mm, filter, (hard pack)	18	1.1	16
Half & Half	king size, filter	18	1.4	16
Pall Mall	king size, filter	18	1.2	18
Picayune	reg. size, non-filter	18	1.2	14
Winston International 100's	100 mm, filter, (hard pack)	18	1.3	17
Max 120's	120 mm, filter, menthol	18	1.5	17
Kool	reg. size, non-filter, menthol	18	1.0	14
Tall 120's	120 mm, filter	19	1.5	19
Max 120's	120 mm, filter	19	1.5	18
Long Johns 120's	120 mm, filter	19	1.5	19

③ All results below 0.5 mg. "Tar," 0.05 mg. nicotine and 0.5 mg. carbon monoxide reported as <0.5, <0.05, and <0.5, respectively.

PM3001060762

Source: https://www.industrydocuments.ucsf.edu/docs/pfkk0001

BRAND	TYPE	TAR① (mg/cig)	NICOTINE① (mg/cig)	CARBON MONOXIDE① (mg/cig)
Old Gold Filters	100 mm, filter	20	1.5	19
Spring 100's	100 mm, filter, menthol	20	1.1	18
Newport 100's	100 mm, filter, menthol	20	1.4	20
Camel	reg. size, non-filter	20	1.3	12
Chesterfield	reg. size, non-filter	20	1.3	13
Philip Morris	reg. size, non-filter	22	1.4	12
Raleigh	king size, non-filter	23	1.3	17
English Ovals	reg. size, non-filter, (hard pack)	23	1.7	12
Lucky Strike	reg. size, non-filter	24	1.5	16
Chesterfield	king size, non-filter	24	1.6	14
Pall Mall	king size, non-filter	24	1.6	16
Players	reg. size, non-filter, (hard pack)	25	1.8	14
Old Gold Straight	king size, non-filter	26	1.6	17
Philip Morris Commander	king size, non-filter	26	1.7	15
English Ovals	king size, non-filter, (hard pack)	27	2.0	13
Herbert Tareyton	king size, non-filter	28	1.8	19
Bull Durham	king size, filter	30	2.0	23

① All results below 0.5 mg. "tar,", 0.05 mg. nicotine and 0.5 mg. carbon monoxide reported ass < 0.5, < 0.05, and < 0.5, respectively.

Source: https://www.industrydocuments.ucsf.edu/docs/pfkk0001

TAR①, NICOTINE② AND CARBON MONOXIDE③ CONTENT OF TWO HUNDRED-EIGHT (208) VARIETIES OF DOMESTIC CIGARETTES (shown in increasing order of nicotine values)

BRAND	TYPE	TAR① (mg/cig)	NICOTINE② (mg/cig)	CARBON MONOXIDE③ (mg/cig)
Now 100's	100 mm, filter, (hard pack)	<0.5	<0.05	<0.5
Now	king size, filter, (hard pack)	<0.5	<0.05	<0.5
Cambridge	king size, filter, (hard pack)	<0.5	<0.05	<0.5
Carlton 100's	100 mm, filter, menthol, (hard pack)	<0.5	0.1	<0.5
Carlton	king size, filter, (hard pack)	<0.5	0.1	<0.5
Carlton	king size, filter, menthol	<0.5	0.1	1
Tareyton Ultra Low Tar	king size, filter, menthol	1	0.1	1
Carlton 100's	100 mm, filter, (hard pack)	1	0.1	1
Cambridge	king size, filter	1	0.1	1
Benson & Hedges	reg. size, filter, (hard pack)	1	0.1	2
Now	king size, filter, menthol	1	0.1	1
Barclay*	king size, filter, menthol	1	0.1	1
Barclay*	king size, filter	1	0.1	1
Carlton	king size, filter	1	0.1	2
Now	king size, filter	1	0.1	1
Kool Ultra***	king size, filter, menthol	2	0.2	1
Barclay*	king size, filter, (hard pack)	1	0.2	1
Now 100's	100 mm, filter, menthol	2	0.2	1
Now 100's	100 mm, filter	2	0.2	2
Iceberg 100's	100 mm, filter, menthol	3	0.3	4
Merit Ultra Lights	king size, filter, menthol	3	0.3	4
Kent III	king size, filter	2	0.3	2
Barclay 100's*	100 mm, filter, menthol	3	0.3	3
Barclay 100's*	100 mm, filter	3	0.3	2
Lucky 100's	100 mm, filter	3	0.3	4
Triumph	king size, filter	2	0.3	2
Merit Ultra Lights	king size, filter	4	0.3	4
Cambridge 100's	100 mm, filter	3	0.3	5
Triumph	king size, filter, menthol	3	0.4	3
Winston Ultra	king size, filter	4	0.4	4
Doral II	king size, filter, menthol	4	0.4	3
Carlton 100's	100 mm, filter, menthol	4	0.4	5
Kool Ultra 100's***	100 mm, filter, menthol	4	0.4	4
Tareyton Lights	king size, filter	5	0.4	5
Doral II	king size, filter	4	0.4	4
Vantage Ultra Lights	king size, filter	4	0.4	5
Carlton 100's	100 mm, filter	4	0.4	6
True	king size, filter	5	0.4	5
Salem Ultra	king size, filter, menthol	5	0.4	5
Salem Ultra 100's	100 mm, filter, menthol	5	0.4	6
True	king size, filter, menthol	5	0.4	5
Winston Ultra 100's	100 mm, filter	5	0.4	6
Decade	king size, filter, menthol	5	0.4	4
Vantage Ultra Lights 100's	100 mm, filter	4	0.4	5
Triumph 100's	100 mm, filter, menthol	4	0.5	5
Decade	king size, filter	5	0.5	5
Kent III 100's	100 mm, filter	5	0.5	6
Triumph 100's	100 mm, filter	4	0.5	6
Kool Super Lights	king size, filter, menthol	6	0.5	6
Carlton 120's	120 mm, filter	6	0.6	4
Northwind	king size, filter, menthol	8	0.6	10
Carlton 120's	120 mm, filter, menthol	6	0.6	5
Merit	king size, filter, menthol	8	0.6	10
Merit	king size, filter	8	0.6	11
Pall Mall Extra Light	king size, filter	6	0.6	7
Virginia Slims Lights 100's	100 mm, filter, menthol, (hard pack)	8	0.6	8

① TPM dry (tar)—milligrams total particulate matter less nicotine and water.
② Milligrams total alkaloids reported as nicotine.
③ All results below 0.5 mg. "tar," 0.05 mg. nicotine and 0.5 mg. carbon monoxide reported as <0.5, <0.05, and <0.5, respectively.
* See statement in text concerning Barclay.
*** See statement in text concerning Kool Ultra.

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Source: https://www.industrydocuments.ucsf.edu/docs/pfkk0001

BRAND	TYPE	TAR③ (mg/cig)	NICOTINE③ (mg/cig)	CARBON MONOXIDE③ (mg/cig)
True 100's	100 mm, filter	7	0.6	8
Northwind 100's	100 mm, filter, menthol	9	0.6	11
More Lights 100's	100 mm, filter, menthol, (hard pack)	8	0.6	9
True 100's	100 mm, filter, menthol	7	0.6	9
Vantage	king size, filter, menthol	9	0.6	13
Parliament Lights	king size, filter, (hard pack)	9	0.6	9
Salem Lights	king size, filter, menthol	8	0.6	11
Tareyton Long Lights 100's	100 mm, filter	7	0.6	7
Virginia Slims Lights 100's	100 mm, filter, (hard pack)	9	0.7	9
Vantage 100's	100 mm, filter	9	0.7	12
Kool Super Lights 100's	100 mm, filter, menthol	9	0.7	12
Kool Lights	king size, filter, menthol	9	0.7	10
Camel Lights	king size, filter	8	0.7	10
Camel Lights	king size, filter, (hard pack)	8	0.7	8
Merit 100's	100 mm, filter, menthol	9	0.7	11
More Lights 100's	100 mm, filter, (hard pack)	9	0.7	9
Parliament Lights	king size, filter	9	0.7	11
Raleigh Lights	king size, filter	9	0.7	10
Viceroy Rich Lights	king size, filter	9	0.7	10
Belair 100's	100 mm, filter, menthol	9	0.7	11
Lucky Ten	king size, filter	9	0.7	11
Vantage	king size, filter	9	0.7	13
Golden Lights	king size, filter	8	0.7	9
Omni 100's	100 mm, filter, menthol	8	0.7	6
Marlboro Lights	king size, filter, (hard pack)	10	0.7	12
Belair	king size, filter, menthol	9	0.7	10
Newport Lights	king size, filter, menthol	9	0.7	10
Merit 100's	100 mm, filter	11	0.7	13
Newport Lights	king size, filter, menthol, (hard pack)	9	0.7	9
Salem Lights 100's	100 mm, filter, menthol	10	0.7	12
Decade 100's	100 mm, filter	8	0.7	6
Golden Lights 100's	100 mm, filter, menthol	8	0.7	8
L & M Lights 100's	100 mm, filter, menthol	8	0.8	6
Golden Lights	king size, filter, menthol	9	0.8	9
Benson & Hedges Lights 100's	100 mm, filter, menthol	11	0.8	12
Viceroy Rich Lights 100's	100 mm, filter	10	0.8	12
Multifilter	king size, filter, menthol	11	0.8	10
Marlboro Lights	king size, filter	11	0.8	13
Raleigh Lights 100's	100 mm, filter	10	0.8	13
Pall Mall Light 100's	100 mm, filter	9	0.8	8
Golden Lights 100's	100 mm, filter	9	0.8	9
L & M Lights	king size, filter	9	0.8	7
Benson & Hedges Lights 100's	100 mm, filter	11	0.8	13
Winston Lights	king size, filter	11	0.8	11
Benson & Hedges Lights 100's	100 mm, filter, (hard pack)	11	0.8	13
Benson & Hedges Lights 100's	100 mm, filter, menthol, (hard pack)	11	0.8	12
Newport Lights 100's	100 mm, filter, menthol	9	0.8	10
L & M Lights 100's	100 mm, filter	8	0.8	6
Kool Milds	king size, filter, menthol	11	0.8	13
Marlboro Lights 100's	100 mm, filter	11	0.8	13
Multifilter	king size, filter	12	0.8	12
Winston Lights 100's	100 mm, filter	12	0.8	15
Camel Lights 100's	100 mm, filter	12	0.8	15
Old Gold Lights	king size, filter	10	0.9	10
Kool Lights 100's	100 mm, filter, menthol	11	0.9	11
Alpine	king size, filter, menthol	14	0.9	14
Kool Milds 100's	100 mm, filter, menthol	12	0.9	14
Marlboro	king size, filter, menthol	15	0.9	14
Parliament Lights 100's	100 mm, filter	12	0.9	11
Marlboro	king size, filter, menthol, (hard pack)	15	0.9	14
Viceroy	king size, filter	15	0.9	17
Kent	king size, filter, (hard pack)	13	0.9	13
Kent	king size, filter	12	0.9	12
L & M	king size, filter, (hard pack)	14	1.0	15
Kool Super Long 100's	100 mm, filter, menthol	14	1.0	16
Raleigh	king size, filter	16	1.0	17

③ All results below 0.5 mg. "tar," 0.05 mg. nicotine and 0.5 mg. carbon monoxide reported as < 0.5, < 0.05, and < 0.5, respectively.

Source: https://www.industrydocuments.ucsf.edu/docs/pfkk0001

BRAND	TYPE	TAR① (mg/cig)	NICOTINE① (mg/cig)	CARBON MONOXIDE① (mg/cig)
Eve Lights 100's	100 mm, filter	13	1.0	13
Eve Lights 100's	100 mm, filter, menthol	13	1.0	13
Winston 100's	100 mm, filter	14	1.0	14
Philip Morris International 100's	100 mm, filter, menthol, (hard pack)	16	1.0	16
Oasis	king size, filter, menthol	15	1.0	15
Montclair	king size, filter, menthol	15	1.0	16
Galaxy	king size, filter	16	1.0	16
Tareyton	king size, filter	14	1.0	16
Winston	king size, filter	15	1.0	16
Lark Lights	king size, filter	14	1.0	13
Viceroy Super Longs 100's	100 mm, filter	15	1.0	18
Salem	king size, filter, menthol	15	1.0	14
Virginia Slims 100's	100 mm, filter, menthol	15	1.0	14
Virginia Slims 100's	100 mm, filter	15	1.0	14
Winston	king size, filter, (hard pack)	16	1.0	16
DuMaurier	king size, filter, (hard pack)	16	1.0	18
L & M	king size, filter	15	1.0	15
Camel	king size, filter	15	1.0	15
Saratoga 120's	120 mm, filter, (hard pack)	15	1.0	16
Kool	reg. size, non-filter, menthol	18	1.0	14
Saratoga 120's	120 mm, filter, menthol, (hard pack)	15	1.0	16
Chesterfield	king size, filter	15	1.0	15
Newport Red	king size, filter	13	1.0	15
Raleigh 100's	100 mm, filter	17	1.0	18
Benson & Hedges 100's	100 mm, filter, menthol, (hard pack)	16	1.1	15
Pall Mall Light 100's	100 mm, filter, menthol	13	1.1	13
Newport Red	king size, filter, (hard pack)	13	1.1	14
Benson & Hedges 100's	100 mm, filter, (hard pack)	16	1.1	15
Marlboro	king size, filter, (hard pack)	16	1.1	15
Chesterfield 100	100 mm, filter	15	1.1	17
Marlboro	king size, filter	17	1.1	15
Kent 100's	100 mm, filter	14	1.1	13
Tareyton 100's	100 mm, filter	15	1.1	17
Silva Thins 100's	100 mm, filter	12	1.1	10
L & M 100's	100 mm, filter	15	1.1	16
Eve Lights 120's	120 mm, filter, (hard pack)	13	1.1	11
Silva Thins 100's	100 mm, filter, menthol	12	1.1	10
St. Moritz 100's	100 mm, filter	15	1.1	15
Spring 100's	100 mm, filter, menthol	20	1.1	18
Kool	king size, filter, menthol, (hard pack)	16	1.1	17
Newport	king size, filter, menthol, (hard pack)	16	1.1	16
Eve Lights 120's	120 mm, filter, menthol, (hard pack)	14	1.1	11
Marlboro 100's	100 mm, filter	17	1.1	16
Marlboro 100's	100 mm, filter, (hard pack)	17	1.1	17
Lark Lights 100's	100 mm, filter	15	1.1	14
Kool	king size, filter, menthol	17	1.1	15
Philip Morris International 100's	100 mm, filter, (hard pack)	18	1.1	16
Benson & Hedges 100's	100 mm, filter, menthol	17	1.1	16
Benson & Hedges 100's	100 mm, filter	17	1.1	16
Lark	king size, filter	15	1.1	14
Salem 100's	100 mm, filter, menthol	15	1.1	14
St. Moritz 100's	100 mm, filter, menthol	15	1.1	15
Picayune	reg. size, non-filter	18	1.2	14
Pall Mall	king size, filter	18	1.2	18
Benson & Hedges	king size, filter, (hard pack)	16	1.2	13
Lark 100's	100 mm, filter	16	1.2	15
Newport	king size, filter, menthol	17	1.2	17
Kent 100's	100 mm, filter, menthol	15	1.2	14
More 120's	120 mm, filter	17	1.2	21
More 120's	120 mm, filter, menthol	16	1.2	19
Pall Mall 100's	100 mm, filter	16	1.2	16
Old Gold Filter	king size, filter	17	1.3	18
Raleigh	king size, non-filter	23	1.3	17
Camel	reg. size, non-filter	20	1.3	12
Long Johns 120's	120 mm, filter, menthol	15	1.3	16
Chesterfield	reg. size, non-filter	20	1.3	13

① All results below 0.5 mg. "tar," 0.05 mg. nicotine and 0.5 mg. carbon monoxide reported as <0.5, <0.05, and <0.5, respectively.

Source: https://www.industrydocuments.ucsf.edu/docs/pfkk0001

BRAND	TYPE	TAR① (mg/cig)	NICOTINE① (mg/cig)	CARBON MONOXIDE② (mg/cig)
Winston International 100's	100 mm, filter, (hard pack)	18	1.3	17
Tall 120's	120 mm, filter, menthol	17	1.3	18
Philip Morris	reg. size, non-filter	22	1.4	12
Half & Half	king size, filter	18	1.4	16
Newport 100's	100 mm, filter, menthol	20	1.4	20
Lucky Strike	reg. size, non-filter	24	1.5	16
Max 120's	120 mm, filter, menthol	18	1.5	17
Old Gold Filter 100's	100 mm, filter	20	1.5	19
Max 120's	120 mm, filter	19	1.5	18
Tall 120's	120 mm, filter	19	1.5	19
Long Johns 120's	120 mm, filter	19	1.5	19
Pall Mall	king size, non-filter	24	1.6	16
Chesterfield	king size, non-filter	24	1.6	14
Old Gold Straights	king size, non-filter	26	1.6	17
English Ovals	reg. size, non-filter, (hard pack)	23	1.7	12
Philip Morris Commander	king size, non-filter	26	1.7	15
Herbert Tareyton	king size, non-filter	28	1.8	19
Players	reg. size, non-filter, (hard pack)	25	1.8	14
Bull Durham	king size, filter	30	2.0	23
English Ovals	king size, non-filter, (hard pack)	27	2.0	13

② All results below 0.5 mg. "tar," 0.05 mg nicotine and 0.5 mg. carbon monoxide reported as < 0.5, < 0.05, and < 0.5, respectively.

Source: https://www.industrydocuments.ucsf.edu/docs/pfkk0001

TAR①, NICOTINE② AND CARBON MONOXIDE③ CONTENT OF TWO HUNDRED-EIGHT (208) VARIETIES OF DOMESTIC CIGARETTES
(shown in increasing order of carbon monoxide values)

BRAND	TYPE	TAR② (mg/cig)	NICOTINE③ (mg/cig)	CARBON MONOXIDE③ (mg/cig)
Carlton	king size, filter, (hard pack)	<0.5	<0.05	<0.5
Now	king size, filter, (hard pack)	<0.5	0.1	<0.5
Now 100's	100 mm, filter, (hard pack)	<0.5	<0.05	<0.5
Cambridge	king size, filter, (hard pack)	<0.5	<0.05	<0.5
Carlton 100's	100 mm, filter, menthol, (hard pack)	<0.5	0.1	<0.5
Barclay*	king size, filter	1	0.1	1
Carlton 100's	100 mm, filter, (hard pack)	1	0.1	1
Tareyton Ultra Low Tar	king size, filter, menthol	1	0.1	1
Carlton	king size, filter, menthol	<0.5	0.1	1
Now	king size, filter, menthol	1	0.1	1
Cambridge	king size, filter	1	0.1	1
Barclay*	king size, filter, (hard pack)	1	0.2	1
Barclay*	king size, filter, menthol	1	0.1	1
Kool Ultra***	king size, filter, menthol	2	0.2	1
Now 100's	100 mm, filter, menthol	2	0.2	1
Now	king size, filter	1	0.1	1
Benson & Hedges	reg. size, filter, (hard pack)	1	0.1	2
Carlton	king size, filter	1	0.1	2
Now 100's	100 mm, filter	2	0.2	2
Kent III	king size, filter	2	0.3	2
Barclay 100's*	100 mm, filter	3	0.3	2
Triumph	king size, filter	2	0.3	2
Barclay 100's*	100 mm, filter, menthol	3	0.3	3
Triumph	king size, filter, menthol	3	0.4	3
Doral II	king size, filter, menthol	4	0.4	3
Iceberg 100's	100 mm, filter, menthol	3	0.3	4
Kool Ultra 100's***	100 mm, filter, menthol	4	0.4	4
Merit Ultra Lights	king size, filter, menthol	3	0.3	4
Doral II	king size, filter	4	0.4	4
Merit Ultra Lights	king size, filter	4	0.3	4
Winston Ultra	king size, filter	4	0.4	4
Decade	king size, filter, menthol	5	0.4	4
Carlton 120's	120 mm, filter	6	0.6	4
Lucky 100's	100 mm, filter	3	0.3	4
Carlton 120's	120 mm, filter, menthol	6	0.6	5
Tareyton Lights	king size, filter	5	0.4	5
True	king size, filter	5	0.4	5
Decade	king size, filter	5	0.5	5
Salem Ultra	king size, filter, menthol	5	0.4	5
Vantage Ultra Lights	king size, filter	4	0.4	5
Cambridge 100's	100 mm, filter	3	0.3	5
True	king size, filter, menthol	5	0.4	5
Triumph 100's	100 mm, filter, menthol	4	0.5	5
Carlton 100's	100 mm, filter, menthol	4	0.4	5
Vantage Ultra Lights 100's	100 mm, filter	4	0.4	5
L & M Lights 100's	100 mm, filter, menthol	8	0.8	6
Carlton 100's	100 mm, filter	4	0.4	6
Triumph 100's	100 mm, filter	4	0.5	6
Decade 100's	100 mm, filter	8	0.7	6
L & M Lights 100's	100 mm, filter	8	0.8	6
Salem Ultra 100's	100 mm, filter, menthol	5	0.4	6
Kent III 100's	100 mm, filter	5	0.5	6
Kool Super Lights	king size, filter, menthol	6	0.5	6
Omni 100's	100 mm, filter, menthol	8	0.7	6
Winston Ultra 100's	100 mm, filter	5	0.4	6
Pall Mall Extra Light	king size, filter	6	0.6	7
L & M Lights	king size, filter	9	0.8	7
Tareyton Long Lights 100's	100 mm, filter	7	0.6	7
Camel Lights	king size, filter, (hard pack)	8	0.7	8

① TPM dry (tar)—milligrams total particulate matter less nicotine and water.
② Milligrams total alkaloids reported as nicotine.
③ All results below 0.5 mg. "tar," 0.05 mg. nicotine and 0.5 mg. carbon monoxide reported as <0.5, <0.05, and <0.5, respectively.
* See statement in text concerning Barclay.
*** See statement in text concerning Kool Ultra.

Source: https://www.industrydocuments.ucsf.edu/docs/pfkk0001

BRAND	TYPE	TAR② (mg/cig)	NICOTINE③ (mg/cig)	CARBON MONOXIDE③ (mg/cig)
Virginia Slims Lights 100's	100 mm, filter, menthol, (hard pack)	8	0.6	8
Pall Mall Light 100's	100 mm, filter	9	0.8	8
Golden Lights 100's	100 mm, filter, menthol	8	0.7	8
True 100's	100 mm, filter	7	0.6	8
Golden Lights	king size, filter	8	0.7	9
True 100's	100 mm, filter, menthol	7	0.6	9
Virginia Slims Lights 100's	100 mm, filter, (hard pack)	9	0.7	9
Golden Lights 100's	100 mm, filter	9	0.8	9
More Lights 100's	100 mm, filter, (hard pack)	9	0.7	9
More Lights 100's	100 mm, filter, menthol, (hard pack)	8	0.6	9
Golden Lights	king size, filter, menthol	9	0.8	9
Parliament Lights	king size, filter, (hard pack)	9	0.6	9
Newport Lights	king size, filter, menthol, (hard pack)	9	0.7	9
Newport Lights 100's	100 mm, filter, menthol	9	0.8	10
Newport Lights	king size, filter, menthol	9	0.7	10
Belair	king size, filter, menthol	9	0.7	10
Raleigh Lights	king size, filter	9	0.7	10
Merit	king size, filter, menthol	8	0.6	10
Northwind	king size, filter, menthol	8	0.6	10
Multifilter	king size, filter, menthol	11	0.8	10
Silva Thins 100's	100 mm, filter, menthol	12	1.1	10
Old Gold Lights	king size, filter	10	0.9	10
Camel Lights	king size, filter	8	0.7	10
Silva Thins 100's	100 mm, filter	12	1.1	10
Viceroy Rich Lights	king size, filter	9	0.7	10
Kool Lights	king size, filter, menthol	9	0.7	10
Salem Lights	king size, filter, menthol	8	0.6	11
Lucky Ten	king size, filter	9	0.7	11
Northwind 100's	100 mm, filter, menthol	9	0.6	11
Merit	king size, filter	8	0.6	11
Parliament Lights	king size, filter	9	0.7	11
Eve Lights 120's	120 mm, filter, menthol, (hard pack)	14	1.1	11
Eve Lights 120's	120 mm, filter, (hard pack)	13	1.1	11
Kool Lights 100's	100 mm, filter, menthol	11	0.9	11
Parliament Lights 100's	100 mm, filter	12	0.9	11
Winston Lights	king size, filter	11	0.8	11
Merit 100's	100 mm, filter, menthol	9	0.7	11
Belair 100's	100 mm, filter, menthol	9	0.7	11
Salem Lights 100's	100 mm, filter, menthol	10	0.7	12
Marlboro Lights	king size, filter, (hard pack)	10	0.7	12
Multifilter	king size, filter	12	0.8	12
Kool Super Lights 100's	100 mm, filter, menthol	9	0.7	12
Benson & Hedges Lights 100's	100 mm, filter, menthol	11	0.8	12
English Ovals	reg. size, non-filter, (hard pack)	23	1.7	12
Benson & Hedges Lights 100's	100 mm, filter, menthol, (hard pack)	11	0.8	12
Camel	reg. size, non-filter	20	1.3	12
Vantage 100's	100 mm, filter	9	0.7	12
Kent	king size, filter	12	0.9	12
Philip Morris	reg. size, non-filter	22	1.4	12
Viceroy Rich Lights 100's	100 mm, filter	10	0.8	12
Chesterfield	reg. size, non-filter	20	1.3	13
Marlboro Lights	king size, filter	11	0.8	13
Pall Mall Light 100's	100 mm, filter, menthol	13	1.1	13
Kent	king size, filter, (hard pack)	13	0.9	13
Merit 100's	100 mm, filter	11	0.7	13
Raleigh Lights 100's	100 mm, filter	10	0.8	13
Marlboro Lights 100's	100 mm, filter	11	0.8	13
Kool Milds	king size, filter, menthol	11	0.8	13
Benson & Hedges Lights 100's	100 mm, filter, (hard pack)	11	0.8	13
Eve Lights 100's	100 mm, filter, menthol	13	1.0	13
Vantage	king size, filter	9	0.7	13
Vantage	king size, filter, menthol	9	0.6	13
Benson & Hedges Lights 100's	100 mm, filter	11	0.8	13
Lark Lights	king size, filter	14	1.0	13
Benson & Hedges	king size, filter	16	1.2	13
Kent 100's	100 mm, filter	14	1.1	13

③ All results below 0.5 mg. "tar," 0.05 mg. nicotine and 0.5 mg. carbon monoxide reported as <0.5, <0.05, and <0.5, respectively.

Source: https://www.industrydocuments.ucsf.edu/docs/pfkk0001

BRAND	TYPE	TAR① (mg/cig)	NICOTINE① (mg/cig)	CARBON MONOXIDE① (mg/cig)
English Ovals	king size, non-filter, (hard pack)	27	2.0	13
Eve Lights 100's	100 mm, filter	13	1.0	13
Kent 100's	100 mm, filter, menthol	15	1.2	14
Salem 100's	100 mm, filter, menthol	15	1.1	14
Alpine	king size, filter, menthol	14	0.9	14
Salem	king size, filter, menthol	15	1.0	14
Kool	reg. size, non-filter, menthol	18	1.0	14
Kool Milds 100's	100 mm, filter, menthol	12	0.9	14
Virginia Slims 100's	100 mm, filter, menthol	15	1.0	14
Picayune	reg. size, non-filter	18	1.2	14
Lark Lights 100's	100 mm, filter	15	1.1	14
Newport Red	king size, filter, (hard pack)	13	1.1	14
Lark	king size, filter	15	1.1	14
Virginia Slims 100's	100 mm, filter	15	1.0	14
Marlboro	king size, filter, menthol	15	0.9	14
Marlboro	king size, filter, menthol, (hard pack)	15	0.9	14
Chesterfield	king size, non-filter	24	1.6	14
Players	reg. size, non-filter, (hard pack)	25	1.8	14
Winston 100's	100 mm, filter	14	1.0	14
St. Moritz 100's	100 mm, filter	15	1.1	15
St. Moritz 100's	100 mm, filter, menthol	15	1.1	15
L & M	king size, filter, (hard pack)	14	1.0	15
Camel Lights 100's	100 mm, filter	12	0.8	15
Marlboro	king size, filter, (hard pack)	16	1.1	15
Winston Lights 100's	100 mm, filter	12	0.8	15
Oasis	king size, filter, menthol	15	1.0	15
Philip Morris Commander	king size, non-filter	26	1.7	15
Newport Red	king size, filter	13	1.0	15
Chesterfield	king size, filter	15	1.0	15
Camel	king size, filter	15	1.0	15
Marlboro	king size, filter	17	1.1	15
Benson & Hedges 100's	100 mm, filter, menthol, (hard pack)	16	1.1	15
Lark 100's	100 mm, filter	16	1.2	15
Kool	king size, filter, menthol	17	1.1	15
L & M	king size, filter	15	1.0	15
Benson & Hedges 100's	100 mm, filter, (hard pack)	16	1.1	15
Montclair	king size, filter, menthol	15	1.0	16
Saratoga 120's	120 mm, filter, menthol, (hard pack)	15	1.0	16
Saratoga 120's	120 mm, filter, (hard pack)	15	1.0	16
Winston	king size, filter, (hard pack)	16	1.0	16
Tareyton	king size, filter	14	1.0	16
Philip Morris International 100's	100 mm, filter, (hard pack)	18	1.1	16
Galaxy	king size, filter	16	1.0	16
Kool Super Longs 100's	100 mm, filter, menthol	14	1.0	16
Philip Morris International 100's	100 mm, filter, menthol, (hard pack)	16	1.0	16
Benson & Hedges 100's	100 mm, filter, menthol	17	1.1	16
Benson & Hedges 100's	100 mm, filter	17	1.1	16
Lucky Strike	reg. size, non-filter	24	1.5	16
Winston	king size, filter	15	1.0	16
Long Johns 120's	120 mm, filter, menthol	15	1.3	16
Newport	king size, filter, menthol, (hard pack)	16	1.1	16
Marlboro 100's	100 mm, filter	17	1.1	16
Pall Mall 100's	100 mm, filter	16	1.2	16
Pall Mall	king size, non-filter	24	1.6	16
L & M 100's	100 mm, filter	15	1.1	16
Half & Half	king size, filter	18	1.4	16
Chesterfield 100	100 mm, filter	15	1.1	17
Old Gold Straight	king size, non-filter	26	1.6	17
Max 120's	120 mm, filter, menthol	18	1.5	17
Tareyton 100's	100 mm, filter	15	1.1	17
Marlboro 100's	100 mm, filter, (hard pack)	17	1.1	17
Kool	king size, filter, menthol, (hard pack)	16	1.1	17
Raleigh	king size, non-filter	23	1.3	17
Viceroy	king size, filter	15	0.9	17
Winston International 100's	100 mm, filter, (hard pack)	18	1.3	17
Raleigh	king size, filter	16	1.0	17

① All results below 0.5 mg. "tar," 0.05 mg. nicotine and 0.5 mg. carbon monoxide reported as <0.5, <0.05, and <0.5, respectively.

PM3001060770

Source: https://www.industrydocuments.ucsf.edu/docs/pfkk0001

BRAND	TYPE	TAR ① (mg/cig)	NICOTINE ② (mg/cig)	CARBON MONOXIDE ② (mg/cig)
Newport	king size, filter, menthol	17	1.2	17
Tall 120's	120 mm, filter, menthol	17	1.3	18
DuMaurier	king size, filter, (hard pack)	16	1.0	18
Viceroy Super Longs 100's	100 mm, filter	15	1.0	18
Max 120's	120 mm, filter	19	1.5	18
Spring 100's	100 mm, filter, menthol	20	1.1	18
Raleigh 100's	100 mm, filter	17	1.0	18
Pall Mall	king size, filter	18	1.2	18
Old Gold Filter	king size, filter	17	1.3	18
Herbert Tareyton	king size, non-filter	28	1.8	19
Long Johns 120's	120 mm, filter	19	1.5	19
More 120's	120 mm, filter, menthol	16	1.2	19
Old Gold Filter 100's	100 mm, filter	20	1.5	19
Tall 120's	120 mm, filter	19	1.5	19
Newport 100's	100 mm, filter, menthol	20	1.4	20
More 120's	120 mm, filter	17	1.2	21
Bull Durham	king size, filter	30	2.0	23

② All results below 0.5 mg. "tar," 0.05 mg nicotine and 0.5 mg. carbon monoxide reported as <0.5, <0.05, and <0.5, respectively.

PM3001060771

Source: https://www.industrydocuments.ucsf.edu/docs/pfkk0001